

REMARKS

Claims 1-20, 22-41, and 43-55 are pending. Claim 55 has been added by this amendment. Claims 1, 13, 22, 34-36, and 43 are amended.

The claim amendments are intended to correct inadvertent inconsistencies in the claims. For example, in claim 1 as originally filed, the client requests to communicate using synchronous communications with a web service that is communicating using asynchronous communications. According to various embodiments, both the conversion of communications and the translation of the web service description language file can proceed from synchronous to asynchronous and from asynchronous to synchronous. The amendments are supported by the application as originally filed, for example, in paragraphs [0029]-[0031], and throughout the application. No new matter has been added.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1-7, 9-12, 14-20, 23-24, 26, and 36-41 were rejected under 35 U.S.C. § 103(a) as obvious in view of Niblett et al. (U.S. Pat. No. 6,336,135) (hereinafter “Niblett”) and Han et al. (U.S. Pub. No. 2002/0143819 A1) (hereinafter “Han”). Claims 13, 22, 27-35, and 43-54 were rejected under 35 U.S.C. § 103(a) as obvious in view of Niblett, Han, and Blair et al. (U.S. Pat. No. 6,065,082) (hereinafter “Blair”). Claim 8 was rejected under 35 U.S.C. § 103(a) as obvious in view of Niblett and Bowman et al. (U.S. Pat. No. 6,438,594) (hereinafter “Bowman”). It is respectfully submitted that claims 1-20, 22-41, and 43-54 are not obvious for at least the following reasons.

The arguments set forth in the previous response are maintained and are hereby incorporated by reference. As discussed therein, the independent claims recite features not disclosed or suggested in any of the cited references, considered alone or in combination. The dependent claims include all the features of the independent claims on which they are based and are thus not obvious for at least the reasons set forth in the previous response.

Niblett relates generally to techniques at “at a gateway for linking between different communication models.” (Abstract). According to Niblett, the gateway “facilitates interoperation between computer programs which require synchronous communications sessions and computer programs based on an asynchronous model of communication.” (Abstract). For example, Niblett states: “When the server system receives HTML requests from said WWW client terminal (within a synchronous communication session) which require interaction with an application program which is designed for asynchronous communications, a process at the server system forwards the request to the application program as a message sent to the application

program's input queue." (Col. 8, lines 19-26). In particular, Niblett mentions a "format-conversion application component" that "serves to convert between Web Browsers' HTML requests and replies and the internal message structure of an application program 270 which is unable to interpret HTML." (Col. 11, lines 40-46). In response to receiving a message from a user at the gateway via HTML, the gateway "puts 360 a message onto the application program's defined input queue," with data "conversion being performed by a process on the server system separate from the gateway program itself." (Col. 12, lines 60-67; col. 13, lines 1-7).

Han relates generally to a "Web service syndication system." (Title). Specifically, Han describes a system in which "A registration database stores a service description for each of a plurality of different Web services and other resources." (Abstract). "Each stored service description contains an input processing specification, an output processing specification, and the specification of the business terms upon which the described service or resource is offered by its provider to subscribers." (Abstract). According to Han, "Service descriptions in the service registry" may be published as WSDL service descriptions. (¶ [0168]). "WSDL (Web Services Description Language) is an XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information." (¶ [0003]).

In contrast, claim 1 of the present application, by way of example, recites translating a first web service description language file describing asynchronous operations into a second web service description language file describing synchronous operations. As is discussed in the application as filed, "Two main communication models exist for communication between a requestor and a web service: a synchronous communication model and an asynchronous communication model." (¶ [0007]). Typically, the two communication models cannot work in conjunction. (¶ [0008]). Thus, in embodiments of claim 1, a requester communicating synchronously can send a request to, for example, an integration services network, which performs asynchronous messaging with the recipient (e.g., a web service). (¶ [0036]).

Code for interaction between a requester and a web service can be generated according to web services description language file ("WSDL"). "WSDL is an XML-based description of how to connect to and communicate with a particular web service." (¶ [0043]). However, "many requestors communicate asynchronously and can therefore not benefit from the WSDL files that are designed for synchronous communication." (¶ [0043]). That is, even if requests are transmitted by a conversion engine from an asynchronous requester to a synchronous web service, there is still a need to describe how to connect to and communicate with the web service using asynchronous communication since the WSDL provided by the web service will only

describe how to communicate with the web service using synchronous communication. In some embodiments, “The invention solves this problem by translating a WSDL file published by a synchronous web service (110) with the integration services network (106) into a WSDL file that can be used by an asynchronous requestor.” (¶ [0044]).

Thus, the present application as recited in claim 1 recites *both*: translating an existing asynchronous WSDL into a synchronous WSDL, *and* converting a subsequent synchronous request for information from a client to an asynchronous request for the web service to which the request was directed. Neither Niblett nor Han, alone or in combination teaches both of these limitations.

As discussed above, Niblett does mention facilitating interoperation between computer programs which require synchronous communications sessions and computer programs based on an asynchronous model of communication. (Abstract). However, there is no mention anywhere in Niblett of a web service description language (“WSDL”) file describing how to connect to or communicate with a web service using synchronous communications. Indeed, Niblett makes no mention of any file that describes how to connect to a web service or that allows a client program to automatically generate code for interacting with a web service. Instead, Niblett suggests that all clients must interact with the web service the same way, “via an HTML fill-in form GET or POST request 300 that indicates the name of the message queuing application or service that they wish to use.” (Col. 11, lines 65-67; col. 12, line 1). This single type of communication is fundamentally different than the communication recited in the claims, which recite a web service description language file describing how to connect to or communicate with the web service.

Since Niblett does not disclose any file describing how to communicate with a web service, much less a WSDL file as recited in the claims, Niblett necessarily fails to disclose or suggest any techniques for translating such a file. For example, the discussion of converting an HTML request to a different format in Niblett relates to translating the message itself, not a file describing how to communicate with the application. (Col. 8, l. 12-37). Indeed, as stated above, Niblett suggests that all of the clients interact with the web services the same way (e.g., via HTML forms). Thus, the message translation disclosed in Niblett is fundamentally different than the translation of a WSDL as recited in the claims of the present application.

Han fails to disclose or suggest the same features that are lacking in Niblett, considered alone or in combination with Niblett. Han does mention a WSDL file. (¶ [0161]). However, nowhere does Han disclose or suggest translating any file that describes how to connect to a web service, much less a WSDL. Han does mention an XML representation transformed into a markup language specific to the describer. (¶ [0179]). However, Han fails to disclose or suggest

that the XML representation describes how to connect to or communicate with a web service. Instead, the XML representation is a message related to content delivery. (¶ [0179]-[0181]). Since Han fails to disclose or suggest any translation of a WSDL file, Han necessarily fails to disclose or suggest translating a web service description language file describing how to connect to or communicate with the web service using asynchronous communications into a second web service description language file describing how to connect to or communicate with the web service using synchronous communications.

Thus, neither Niblett nor Han disclose translating a file that describes how to connect to or communicate with a web service. Therefore, even if Han and Niblett were combined, the combination would not yield the claimed invention. Translating a WSDL, as recited in the claims of the present application, is fundamentally different than translating a message. Thus, Niblett and Han, considered alone or in combination, fail to disclose or suggest certain features recited in the independent claims for at least the reasons discussed above.

Blair and Bowman are not cited in the Office Action as disclosing or suggesting any of the features discussed above.

Since the independent claims recite features that are not disclosed or suggested in any of the cited references, the independent claims are not obvious in view of the cited references. The dependent claims include all the features of the independent claims on which they are based and, therefore, are not obvious for at least the reasons set forth above. Thus, it is respectfully submitted that the rejection of claims 1-20, 22-41, and 43-55 under 35 U.S.C. § 103(a) be withdrawn.

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (510) 663-1100.

Respectfully submitted,

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